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"NEC TENUI PENNÂ."

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COLOR-BLINDNESS IN R. R. EMPLOYES.

Every body accepted without hesitation the statement that one in twenty of us was unable to see red and green as did the other nineteen. But when it was sought to put this discovery to every-day use, the acquiescence of every-day people was so slow as almost to make some well-wishers of the race forswear all further efforts in this direction.

That there is life and positive value in the new idea a number of recent events will abundantly exemplify. On the first of this month there went into effect in the State of Massachusetts the following act:

> No railroad company shall employ or keep in its employment any person in a position which requires him to distinguish form- or color-signals, unless such person within two years next preceding has been examined for color-blindness or other defective sight by some competent person employed and paid by the railroad company, and has received a certificate that he is not disqualified for such position by color-blindness or other defective sight. Every railroad company shall require such employe to be reëxamined at least once within every two years, at the expense of the railroad company.

The penalty prescribed for each violation of the enactment is fixed at one hundred dollars.

By dint of hard argumentative knocks and continued agitation, Dr. B. Joy Jeffries has induced the law-makers to see that color-blindness in engineers, firemen, brakemen, and others may be an ever-recurring source of danger to the railroad property and the traveling public.

Whatever is true in this view and serviceable in the governmental control he advocated applies equally to every State blessed with railways. A series of tests based upon the Holmgren colored worsteds have been in use by the Treasury Department for two years as a part of its inspection-service on all our water-courses. The admirable organization of the General Government enables it without delay to put into action, through all its ramifications, the best rules pertaining to its work. If the railroads were under the same supervision as the steamboats, more than twelve months ago there would have been a well-equipped corps of examiners upon duty in every quarter, protecting the traveler by land as well as they do now the voyager by water.

Though State-lines do not limit the range of railroad corporations in extent of property-rights and responsibilities, yet they do circumscribe the operation of any law regulating the roads, no matter how general may be the application of the beneficent principle upon which it is founded. Doubtless one by one, as they progress in enlightenment and regard for human life, the States will follow the example of Connecticut and Massachusetts. Some of the States of Europe have already taken steps to prevent accidents from this cause, while others have experts at work inquiring into the prevalence of this defect, with a view to obviating its consequences.

The initial movement has usually met with opposition from railroad-men and their sympathizers. They assert that the new idea has no other basis than theory, and challenge the assertion that color-blindness has any

thing to do with railroad accidents. That they are not without bias doth appear in this, that the first effect of a system of examinations such as is proposed would be to give unwonted trouble to a certain class of employes (three per cent of whom would lose their occupation), and to complicate for the higher officials a business already sufficiently intricate.

In Connecticut, during the last presidential canvass, the parties were so evenly balanced that demagogues attempted to make political capital by declaiming against a law which had debarred certain citizens from engaging in an employment which suited them, upon the ground that it abridges the liberties of the individual. It is not difficult to show that when we are so tender with the liberties of the individual as to allow him to needlessly imperil the lives of thousands, we are reckless of the greater right of the larger number.

The behavior of railroad commissioners when this project of control is first broached evinces the unwillingness of practical men to accept the suggestions of enthusiasts—based, as they often are, upon reasons so technical as to be above ordinary appreciation. When an earnest man gives rein to his perfervid zeal for the public good, he is apt to speak as if actuated by the advice which Burke gave to the French emigrants during the revolution. "Be alarmists," said he; "diffuse terror." Intensity of feeling moves them to express their opinions with more than ordinary emphasis, and the effect of their eloquence is often as feeble as their style is vehement.

Positive evidence of injurious results will alone have much weight with hard-headed men of business. You tell them that about four per cent of the people of any nation or class will not be able to see colors correctly, and they may respond that still the color-blind manage to distinguish one from another, probably by intensity of light. Usually the fault lies in not appreciating quickly the difference between red, the signal of danger, and green, the caution-signal—both appearing to the color-blind as shades of gray. The recognition ought to be positive and instantaneous, without reference to a standard. When such contrasting colors as red, green, and white are chosen for signals, it is on the obvious principle that to make the various readings prompt and accurate the variations of color can not be too decided. In foggy or stormy weather, or when the light of a lamp burns low, or the glass is dirty or dewy, white may look dim, like the red and green of the color-blind, and the distinction between the "road-clear" signal and the "danger" signal is as insignificant as that between similar tints of gray. Again, the distinguishing traits are so indistinct that a red flag is not seen at all upon a background of green, such as skirts the roads in summer; for to the color-blind a red flower differs from its green foliage only in form—both have a dim gray hue. Under these conditions the chances of a mistake are too many for the safe conduct of trains. A cargo of precious human lives should not be trusted to them.

After all, no one should be more interested in the visual perfection of engineers and firemen than the train-hands themselves, who pass half their time on the cars. Nor is it a matter of small moment to the capitalist, whose rolling-stock is committed to their care.

The appeal for a general law like that quoted above may well be made, first in behalf of the employe himself, next of the traveler, and lastly of the stockholder.

The Pennsylvania Railroad has not waited for legislative interference, but as a matter of self-protection and business-policy has engaged Prof. Wm. Thompson, of Philadelphia, to put to the test for visual defects all those whose position requires them to note the forms and colors of signals. From this it would appear that reasonable men are quite willing to yield to the dictates of science when once they have been convinced of their utility. Now that attention is drawn in this direction, proof of the importance of freedom from color-blindness is developed

very rapidly. As examiner in Connecticut, Professor Carmalt, of Yale College, found in two hundred and fifty-nine engineers and firemen altogether seven color-blind. There was but one of these over thirty-two years of age. Now, when the practical railroadman says, "We can find out without your test whether a man is so color-blind as to be unable to run a train or not," the answer is, "You do find it out, and that before he reaches thirty-two years of age. You find it out by his mistakes. He runs past his signals, and, if not killed, is discharged for repeated acts of carelessness, so-called." Natural selection will surely do its work of eliminating the unfit man, although several trains may be wrecked in the process.

Luckily for the public-spirited doctors who are agitating this question, there has lately occurred an accident which was most unlucky in all respects except its opportuneness for illustration. According to a statement made on June 9th by Supervising Inspector-general of Steamboats Dumont, a case in point is that of the pilot of the City of Austin, who, through mistaking the color of the buoys in the channel, lost the vessel in the harbor of Fernandina, Fla., on April 24, 1881. Owing to the mildness of the weather no lives were lost, but the estimated loss on the vessel and cargo was two hundred thousand dollars.

The City of Austin, being a registered vessel, was not required to carry a pilot licensed by the United States steamboat inspectors, so she had one licensed by the State of Florida, which State had not yet followed the example of the United States Steamboat Service of examining the vision of pilots, and of refusing licenses to those found to be color-blind. After the loss of the vessel named it appears that the State pilot commissioners of Florida requested Messrs. Jones and Headman, United States steamboat inspectors, Savannah, Ga., to examine their pilot for color-blindness, which they did, and found that at the short distance of six feet he could not distinguish one color from another.

THE PRESIDENT'S WOUND.—We shall abstain from discussing at length the grievous wound of President Garfield for several reasons. There is a doubt of the ethical propriety of commenting on a case under treatment. When it is reported in full by the medical attendant then will come the critic's opportunity. The learned analyses of symptoms put forth by the press, lay and medical, convey as much satisfactory information as one of Bunsby's opinions. It is well to bide one's time until "all the returns" are in. In the meantime, the legal view is a good one to hold—namely, that the opinion of the doctors on the ground is entitled to more consideration than ours at a distance, though our neighborhood may esteem us as wisest among the Thebans. The latest report of the conclusions of the medical staff is to the effect that a 44-caliber ball, with a small charge of powder, was discharged at about six feet distance and entered the back between the tenth and eleventh ribs. The wound was found to be at a point four inches to the right of the median line, and was probed to a depth of three inches. The presence of jaundice is considered by the medical attendants confirmation of their first impressions—namely, that the liver was injured, probably perforated completely. The bowels escaped and general peritonitis has not supervened. About one half the cases of gunshot-wound of the liver have recovered, and the smooth tenor of this case so far justifies a favorable prognosis. Dr. Bliss believes that the ball passed across the abdominal cavity, and is now buried in the anterior wall whence it will not be difficult to remove it in time. As the patient is blessed with a sound constitution, the dangers of septicemia and of the exhaustion of a chronic abscess are reduced to a very small figure.

A JURY is influenced more by the effect of its decision than by the merits of the case. If the President dies, Guiteau will be adjudged a lunatic; if he lives, then a responsible criminal.

Original.

THE ARMAMENTARIUM OF THE GENERAL PRACTITIONER.

BY WILLARD H. MORSE, M.D.

PART V.

XXV. THE CUPPING APPARATUS.

The history of the cupping-glass is both amusing and illustrative of the principles of mechanical evolution. Twenty or more centuries ago the Roman physicians found that an empty gourd, out of which the air had been burned would, when applied over a cut made by a lancet, come to hold a quantity of blood. This was cupping, rude, but as good in practice as theory. For a long time gourds were used as cups, and an especial favorite was the coloquintida gourd, a small species well-suited for the purpose. Hence came the name of the operation (*cucurbitula*, little gourd). Later the practice was perfected by the French using metal cups, and these, or glass, are still employed. The same principle as that of the beginning still obtains. We all know the manner of the so-called "operation." After scarification the glass, from which the air has been previously exhausted, is applied. Dry cupping is the application of the cups without previous scarification, the cups remaining on thirty to forty-five minutes. Cupping, although not preferable to leeching, is valuable. It is advisable to cover the cupped parts with an oiled-silk after the operation.

The well-known glass-and-rubber cup ($1) has given place to the more elaborate glass or metal cup with fittings for pump. Tiemann's cupping apparatus ($10.50 and $13), scarificator included, and several others of the same style and sold at about the same prices, are very good, but my favorite is Knapp's, made at Providence, R. I. The set is comprised in five cups and air-pump in black-walnut case, and the price is $5, if glass cups, or if metal cups $9.50. I prefer two metal and three glass cups for a set, but most physicians have a preference for glass cups altogether. The one beauty of these cups is the perfection of the rubber flanges and the accuracy of the valvular arrangement. Knapp's apparatus is cheap, but it is the best that I ever employed. Junod's "boot" and "arm" for dry-cupping ($15) are reputed good as a counter-irritant. Tiemann's make is perfect. Knapp's "receivers" ($2.50 and $5) serve the same purpose equally well.

XXVI. THE BREAST-PUMP.

The profession has long wanted a good breast-cup or pump. There are many pumps, but their faults are found in too small an opening and lack of sufficient power to draw the milk. Wattson's ($2.50) or Davidson's ($1.50), or others of the same style, draw the milk from a caked breast with difficulty. The hard-rubber pattern ($2) is an improvement on either of these, but it is not what we want. Knapp, of Providence, R. I., has patented an ingenious pump, which to my mind is as near the ideal as we can get. It is of glass, fitted with an elastic rubber base, which is so stretched over the breast as to afford *pressure*, which is given in conjunction with *suction*. This is all on natural principles, imitating the nursing babe. Suction is had by using the air-pump (same as used with Knapp's cupping-glasses). The price is $1. My advice to the general practitioner would be to purchase one of these breast-cups with the cupping apparatus. It is worth more than a dollar to any physician; and although they are not very well known, when an improvement is made upon Knapp's breast-cup it will indeed be an invention of some importance.

XXVII. HERNIA INSTRUMENTS.

Of the so-called hernia instruments there is no great array. Of hernia-directors the common and well-known "blade" is as good as any other; price $2.50. Heaton's syringe is commendable ($4). Of knives, the plain knife ($1), and Cooper's ($2), are all that are needed. Dowell's needles, straight and curved ($1 each), are indispensable. Agnew's instrument ($6) is a favorite. Wutzer's is a German instrument, not very extensively used. Heaton's operation is destined to become *the* operation for hernia; yet there is Dr. Marcy's operation that can well be considered.

XXVIII. SCALES AND GAUGES FOR URETHRAL INSTRUMENTS.

There are several scales; Gouley's ($2), Otis's ($4), Henderson's ($6), the American ($4), etc. Gouley's gauge ($2) is the representative gauge. It is an excellent idea to possess a scale or gauge, but six dollars or even two dollars is too much to pay for such a thing. Tiemann gives any physician a *pasteboard* scale which is as good as a steel one.

XXIX. PERCUSSORS AND PLEXIMETERS.

Unto him that believeth in *percussors* there is a great deal of possibility in the science

of percussion. Moreover, unto him who pins his faith to Flint's percussor, all things in the science become exquisitely practical. Flint's ($1) is the leading and best of percussors. Metcalf's (seventy-five cents) and the "whalebone-stem article ($1) are possessed of many points of excellence, but pay your dollar for Flint's invention and waste not your thoughts on another.

The time is past when the old-fashioned penny was used as a pleximeter. In its place we have the elaborate instrument of ivory ($1), the hard rubber (forty cents), Gerne's ($2.50) the glass (fifty cents), Flint's (thirty-five cents), and others. Flint's mates well with the percussor of the same name, and is one well chosen. But there is an older plexiimeter than any of these, that I prefer and recommend. It is known as the *digitus medius ab sinistra*. It is always convenient, finely flexible, exact, and delicate. More than this it is cheap, and the *digita ab dextra* used with it give us the all of percussion.

XXX. SOME NECESSARY ORTHOPEDIC APPARATUS.

It is well worth while to have in the cabinet some of the many orthopedic apparatus that are to be found at the instrument-makers. In every-day practice they not infrequently come into use, and hence they deserve the place named. I will attempt a bare list of those that may be selected without accompanying it with reference or remark. Such a selection might be as follows: Sayre's suspension apparatus ($8); Sayre's (long) hip-joint splint ($25 and $45); anchylosis apparatus for knee-joint ($18 to $24); genu-valgam brace ($30); and perhaps spinal curvature braces. I do not say that the apparatus are indispensable, but I do witness that they are valuable. There may be others that are not named here which are as worthy of notice, but it is not advisable to include them in an armamentarium. They may all be purchased when required for use; but if they can be afforded the purse-strings can be unloosed for their sake, and conscience will not condemn. Even if they are laid on the back shelf they are there for a possible time of need, but still the matter of purchase depends altogether on extent of practice.

XXXI. LEECHING INSTRUMENTS.

There is an instrument, well enough known to most members of the profession, known as the "artificial leech." It is made in several styles, and under several principles. Prices range from $5 to $8. Heurteloup's (a French invention) is probably the most *marvelous* of all. Tiemann makes an ingenious instrument, which may imitate the natural leech in action, but it can never be a perfect substitute for it. For my part I prefer the real *hirudo* to any imitation. If that can not be had I employ cups.

XXXII. TRANSFUSION APPARATUS.

It may be asked, Is there a better apparatus for transfusion than Aveling's, the one most frequently employed? I think there is not. Garrigue's ($4), and Fryer's ($6.50) are not known as well as Aveling's. Dr. Howe has attached transfusion apparatus to Dienlafay's aspirator, but it has not been thoroughly tested. Still I do not think that, although Aveling's is *the* apparatus, there is any real need of its being included in the armamentarium. Yet if one is convinced that it is among the "indispensables," and can afford the outlay, $4.50 buys the article.

XXXIII. SPLINTS.

I do not believe in the patented splint. I have no faith in that surgical treatment of fractures which is made to general order. There are good splints, and there are those which are as worthless as if they had been intended for other purposes than that for which they are ostensibly used. A pocket-knife, a roll of adhesive plaster, a shingle or a clapboard, and a good stock of common sense, constitute sufficient *materielle* for the extemporization of splints. It has been said that the surgeon should not "warrant" any thing that he does, but as a commentary on that which I have just said I am prepared to say that I truly believe I can get as perfect success in the treatment of fracture by an extemporized splint, or no splint at all, as I can by the best of patent splints. I am perfectly willing to try it. Nevertheless every fallacy has its ardent disciples, and I will not attempt argument in this place. If one *will* use patent splints there are innumerable styles and patterns. Of carved wood splints the old-fashioned basswood is the most preferable. A set of twelve straight and twelve radius splints can be had for $2, and other splints are sold at about the same ratio of prices.

Of hip-joint splints there are Davis's ($15); Sayre's ($15), a very excellent apparatus of its kind; Hamilton's ($15), made of wire gauze on a wire frame; Bauer's ($25), provided with a shoe, and affording complete immobility of the joint; Taylor's ($25 to

$40); Washburn's ($7); Hutchison's ($25), arranged upon an excellent principle; and others.

For fracture of the femur, Smith's splint takes the lead; price, $5. Skinner's fracture bed ($25), Buck's ($40), Hewitt's ($40), Burge's ($50), and others. Of these Buck's has the highest reputation.

For fracture of the patella we have Turner's ($12), Lewis's ($6), Hamilton's ($8), Hartshorn's ($7), Boisnot's ($12), and Tiemann's ($5.50), all well commended. The majority of the profession seem to prefer Hamilton's (*vide* Hamilton on Fractures, etc.).

Of apparatus for treatment of fracture of the tibia and fibula, Smith's ($3) is probably as good as any. The principle of Hodgen's ($6) is excellent. There are many others.

For fracture of the lower maxilla there in nothing comparable to Hamilton's bandage ($5). For the clavicle, Levis's splint ($5), and Fox's bandage ($5) are favorites. Sayre's dressing has its friends. I have never used it or seen it employed.

For Colles's fracture there is a legion of splints. Hewitt's ($7), Shrady's ($2), and several others are well-named. I recommend no one pattern over another.

Had I faith in patented splints I would occupy more space in descriptions. As it is, I refer all to the manufacturer.

XXXIV. LUXATION SPLINTS FOR PHALANGES.

Dr. Gross recommends—and all who possess it praise—Levis's splint for reducing dislocated phalanges. Gross (Surgery, vol. 2, p. 54) describes it, and to most of my readers it is familiarly known. One may buy it for $1.50, or make it for himself in a few minutes.

HINSDALE, N. H.

Correspondence.

NEW YORK LETTER.

Editors Louisville Medical News:

The season for papers is drawing to a close. Those men who regale the societies with heavy articles are registered now at the hotels of fashionable watering-places or on the books of ocean-steamers. We begin to feel happy that no societies will claim our attendance for three months.

Recently I attended the Academy of Medicine and seated myself for a long paper; but I had erred. Dr. A. B. Judson gave us an exceedingly brief talk upon The Use of Crutches in the Treatment of Joint-diseases of the Lower Extremity. He made only one argument, and that was well elaborated. He approved, as do we all, of the importance of giving rest to the diseased joint. This is thought possible now by the use of crutches and a high shoe. The doctor accepted this mode as a possible mode. He did not claim as he could have claimed, and as many of us can claim, that it is simply temporizing with a disease that demands more than crutches. He did speak, however, of the ease with which children threw their crutches aside and used the limb. He spoke of the inconvenience of this treatment, and of the theoretical danger of injuring the brachial plexus. He preferred ischiatic support to axillary support, and described the various hip-splints, which allowed the patient to *sit, as it were, upon them.* He preferred the one which bears Dr. Chas. F. Taylor's name. This makes an ischiatic crutch, leaving out all claims as to its extension powers, and makes a crutch which gives the patient the use of his hands. This splint gives equal support on *both sides*—i. e. the patient can sit squarely upon the splint while a step is being taken. He has a good base here—a base whose parts are not covered with soft and yielding tissues, as are the axillæ.

I must confess this places it in a better light than I have yet seen the subject placed. Many of us are growing skeptical about the good results from the crutches and the high shoe; and, if need be, cases can be shown wherein the failure has been *signal.*

Dr. Judson did not make his paper a clinical one, yet he made it a very practical one, and those who are interested in this great subject of the treatment of hip-disease will do well to read the original, as it will appear in the Medical Record.

At the Pathological Society, last Wednesday evening, there was an unusually large attendance, and the reason was soon found to be the presentation of a testimonial to Dr. G. F. Shrady, who had been for *twenty-two years* its secretary. The testimonial came from the members, who fully appreciated the faithful and valuable services of Dr. Shrady. It was a handsome silver ice-pitcher and a salver from Tiffanny's, and was presented in a very graceful manner by Dr. A. Jacobi, a former president of the society. Dr. Jacobi spoke truly of the service which Dr. Shrady had rendered the society and the whole profession by his accurate reports. He has done much to give the New York Pathological

Society a name and a standing throughout the medical world by his judgment in reporting just what would be of interest, and always getting in the speaker's points better sometimes than the speaker himself stated them. The inscription was as follows:

Presented to
George F. Shrady, M.D.
For twenty-two years Secretary of the New York Pathological Society,
By the Members of the Society.
June 22, 1881.

This evening the New York County Medical Society held its last meeting for the season, and there were—think of it!—*four* papers. Talk of societies for the prevention of cruelty to animals, of prevention of cruelty to children. Why can we not have one for prevention of cruelty to physicians? Think of the unfeeling criminality of a president of a learned body who would permit four papers to be read in one evening, and that, too, during the last week in June! And yet we are accused of not manifesting proper interest in the County Medical Society.

First, Dr. Jno. C. Peters read a long report coming from the Street-cleaning Committee. Well, it was interesting, but rather untimely, inasmuch as all hands are busy now cleaning the streets. Second, Dr. Samuel Sexton read a paper upon The Japanese Otacoustic Fan and other Aids to Hearing, presenting a number of fans curved a little and tipped with a metallic band, which is to be inserted between the canine teeth. The person speaking must be within three feet of the fan and talk at the fan. The doctor didn't have many facts to present, and Dr. Pomeroy, in his remarks, showed that *facts* were not readily attainable. In fact he had n't been fortunate enough to find any patients who could hear sufficiently well with these fans to make it worth while advising their employment. Third, Dr. O. B. Douglass, the secretary of the New York Therapeutical Society, read for the president, Dr. Andrew H. Smith, a lengthy and well-prepared Report on Quebracho in Dyspnea. This will be published in full, and those interested in this new remedy can get copies of the report, when published, by writing to the secretary. Fourth, Dr. Ralph L. Parsons read a paper on The Private Care of the Insane. Dr. P. was for many years presumably an advocate of the *public* care of the insane, as he was superintendent of the Insane Asylum on Blackwell's Island; then by political or other reverses he became deprived of this position, ultimately getting a similar position at the Flatbush Insane Asylum, Long Island. This he did not hold long, and since the election of his successor he has had an opportunity to "work up" the *private care of the insane.* However, I failed to hear his paper, as the hour was growing late; and as I saw a reporter (of the daily press, it seemed) making an abstract before the doctor's turn came to read, I fancied that it must be of public interest, and contented myself with waiting for the report in the morning papers. *

NEW YORK, June 27, 1881.

Reviews.

Diseases of the Nervous System. By WM. A. HAMMOND, M.D., etc. With one hundred and twelve illustrations. Seventh edition. Rewritten, enlarged, and improved. New York: D. Appleton & Co. 1881.

In ten years this famous book has been honored with seven editions. This one presents much the same appearance as the sixth, preserving all the distinctive qualities that made it popular, and all the text save the chapters on insanity. It is the declared purpose of the writer to elaborate his ideas on that subject in a separate treatise in better proportion to its importance. The omission of these chapters has been more than supplied in bulk by amplifying the chapter on cerebral congestion, adding to those on locomotor ataxia and other maladies concerning which recent study has been very fruitful. There is much new matter on myxedema, syphilis of the nervous system, diseases of the sympathetic, and symptomatology of cerebral and cerebellar lesions. Most of this is a translation from the addition made by the French editor and translator to the Paris edition, 1879. The merits of this book, like those of its author, have not been hid under a bushel. It shows great facility of expression, much thought, and wide reading, with an uncommon faith in the power of remedies over diseases commonly found intractable.

PENNSYLVANIA has a medical registration law, signed by the governor, June 8th, which includes the unusual provision that any one who may desire to commence practice in that State hereafter having a medical diploma shall lay the same before the faculty of some medical college of that State, to be indorsed before he shall be allowed to register.

Books and Pamphlets.

SIMPLE METHODS TO STAUNCH ACCIDENTAL HEMORRHAGE. By Edw. Borck, M.D. Reprint. April, 1881.

CARPENTRY AND BUILDING FOR JULY, 1881. Published monthly by David Williams, 83 Reade Street, New York.

THE QUALITY OF MENTAL OPERATIONS DEBASED BY THE USE OF ALCOHOL. By T. L. Wight, M.D., Bellefontaine, Ohio. Reprint.

MANAGEMENT OF WOUNDS. By David Prince, M.D. Philadelphia: Lindsay & Blakiston.

An extension of a paper published in St. Louis Med. and Surg. Journal. It aims in fifty-two pages to present the subject in all its aspects.

INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, U.S.A. Authors and Subjects. Vol. II: Berlioz—Cholas.

A second Ashlar for the monument which Dr. Billings is building to the honor of the service and himself. A colossal task this, to which he has set himself and one of immense benefit to all readers and writers.

Formulary.

ELIXIR ACIDI SALICYLICI (WOLFF).

℞ Acidi salicylici..... 2.0 parts;
Alcoholis..... 12.0 "
Solve et adde
Elixiris simplicis..... 100.0 "

Each tablespoonful contains five grains of salicylic acid. This elixir should not be given with water.—*Pharmacist and Chemist.*

SWEDISH ALTERATIVE.

Licorice-root..... 75 parts;
Saponaria..... 175 "
Juniper-root..... 300 "
Guaiacum-wood, rasped..... 450 "
Mix.

This is officinal in the Swedish Pharmacopeia.—*Druggists Circular.*

ANTI-ASTHMATIC POWDER.

℞ Potassæ nitrat..... } āā ℥ss; 15.00 Gm.;
Pulv. anisi fructûs..... }
Pulv. stramonii folior..... ℥j 30.00 "

Misce. A thimbleful of the powder placed on a plate is pinched into a conical shape and lighted at the top. It burns like a pastile, and is held near the patient, who inhales the fumes.—*Jas. Sawyer, M.D., in British Med. Journal.*

NITRO-GLYCERIN, in minim-doses of the one-per-cent solution three or four times a day, sometimes relieves albuminuria and dropsy in the early stages.

SNOWBLINDNESS, according to Dr. Reed, of Detroit, can be cured by the administration of nitrate of ethyl.

Pharmaceutical.

THE SALE OF MORPHIA IN FLORIDA.—We are informed that the legislature of Florida has passed an act requiring all morphia to be wrapped in crimson paper, whether sold in vials or in grain doses, under a penalty of twenty-five dollars for each omission. The motive seems to have been to prevent mistakes in country stores where quinia is sold in one-eighth-of-an-ounce vials, and both morphia and quinia heretofore were wrapped in blue paper.—*Druggists Circular.*

WHAT IS RESORCINE?—Resorcine, says the Journal of Chemistry, belongs to a class of bodies called *phenols*, to which carbolic acid also belongs. In chemical composition they resemble alcohols. Pyrogallic acid is a triatomic phenol.

Resorcine was originally obtained by fusing certain resins, as gum ammoniacum or galbanum, with caustic potash, extracting it from the fused mass by acidifying with sulphuric acid and shaking with ether, and then purifying it by distillation.

Resorcine crystallizes in colorless plates or columns, and dissolves readily in water, alcohol, and ether. It melts at 104° Cent. (219° F.), and boils at 271° Cent. (520° F.), and can be obtained perfectly pure by distillation. It is claimed that it can be made in Switzerland for four dollars per kilogram (about one dollar and eighty cents a pound), but we find it quoted in German price-lists at from seven dollars and fifty cents to ten dollars per kilogram, or about double the price of salicylic acid. To some extent the price will depend upon the demand.

Resorcine is not poisonous in moderate doses. From twenty-five to thirty grains is required to produce any marked effects. It has been found to reduce the temperature in febrile complaints, but its effect is of short duration, and unpleasant after-effects have been noticed. One of its isomers—hydrochinone—is preferred for use in fevers, the dose being smaller. The third isomer, pyrocatechine, has powerful toxic properties.

Andeer has recently investigated the properties of resorcine, and finds that it possesses the power of stopping decay. A one-per-cent solution of chemically-pure resorcine will stop the development of fungi and mold. In every degree of concentration it coagulates albumen and precipitates it from solution, on which account it may be used as a caustic to remove unhealthy tissue. In

crystals it cauterizes as powerfully as lunar caustic. In minute quantities resorcine will preserve ink and colors, which would otherwise mold quickly, and does not injure the color. To stop fermentation completely requires a rather strong solution of one and a half to two per cent.

Dr. Koller prophesies a great future for resorcine, which, he says, will be the disinfectant and antiseptic of the physician, the druggist, and the chemist. It must not be forgotten, however, that resorcine is too powerful a reagent to be taken internally in unlimited amount.—*Phila. Med. Times.*

Miscellany.

DANGERS OF CHLORATE OF POTASSIUM EXAGGERATED.—Dr. Harkin, in a letter to the Medical Times and Gazette, challenges the correctness of Dr. Jacobi's statements regarding the dangers of using chlorate of potassium. He says he has prescribed the chlorate through the medium of the maternal circulation, to the languishing fetus in utero, with the greatest advantage; to the baby and the nursing mother (to the former directly as well as through the instrumentality of the mammary secretion); to the child in marasmus and struma; to the anemic and menorrhagic female, and to sufferers from every phase of the hemorrhagic diathesis; in skin-ailments from acne punctata to the boil and carbuncle; in fact, to patients suffering from every class of disease depending on debility or subaëration, from the time of childhood to the climacteric period of existence; and he has never witnessed a single instance of permanent injury to health, much less to life. It may disagree perhaps in one case in a thousand, but here gives warning by a feeling of approaching dysuria, and the remedy can be at once discontinued before any real injury accrues.

As to nephritis, Dr. Harkin remembers only a single case that at all approached this condition. Here a young lady suffering from phthisis had an attack of painful strangury lasting some hours, but easily relieved by the ordinary means of stupes, hot baths, etc. Dr. Cutter, of New York, told Dr. Harkin of a case which recovered with difficulty after taking ten grains of the salt. As a contrast, Dr. Harkin mentions the case of a young man who, having been supplied with a gargle containing an ounce of the salt, through mistake drank the whole at a draught, and did not experience the least inconvenience as a consequence.

While therefore Dr. Harkin does not give any credence to the exaggerated statements which have lately appeared in the medical journals, he does not think that the prescription of this remedy should pass out of the control of the profession and become a merely popular medicine, but that it should be given with caution, though without reserve under medical supervision.—*Philadelphia Med. Times.*

SMALLPOX AND EMIGRANTS.—It is urged by the health officer of the port of New York that in the absence of inspection of emigrants at points west of maritime quarantines, the National Board of Health has authority under its power to regulate interstate quarantines to secure inspection of emigrants at the interior distributing centers. The incubation period of smallpox, fourteen days, is much longer than the average time of passage across the Atlantic. Hence the development at Chicago of a considerable outbreak among the new comers and their associates.

QUACK NOSTRUMS.—A correspondent instances a case within his own personal knowledge where a man who could not earn sufficient by blacking boots became an itinerant quack-medicine vendor. At this he became rich enough to educate his son for the profession, and died worth a fortune. The son, although a member of the Royal College of Surgeons of England, *would not stoop to practice*, but lives in luxury on a few quack medicines, one of which is advertised to cure seventy-nine different diseases and ailments. He thinks that cases of this kind are not encouraging to honorable conduct, and complains of the connivance of the government in making revenue from the sale of patent-medicine stamps.—*Med. Press and Circular.*

PROF. BILLROTH'S CASE OF RESECTION OF PYLORUS.—We learn from the *Wiener Medizinische Wochenschrift* that Prof. Billroth's patient, on whom he performed excision of the pylorous for cancer on January 29th, has just died in Vienna. The case, surgically speaking, has become historical, for the operation was quite a new departure, and one which but a short time ago would have been considered impracticable. The case is rendered more interesting by the fact that an autopsy was obtained, and that thus the condition of parts post mortem has been accu-

rately studied. Dr. Zemann—in the absence of Heschl, Director of the Pathological Institute, whose death from the effects of a post-mortem wound has since occurred—conducted the examination. He found that death had resulted from metastatic deposits of cancer throughout the entire peritoneum, the duodenum and jejunum being likewise coated with a similar deposit, so that it was impossible to separate them one from another. As regards the stomach, it is stated that it retained its natural form, and that no one unacquainted with the operation to which it had been subjected would have observed any thing remarkable about it, or guessed that fourteen centimeters had been removed from it. The duodenum had been attached to its lesser curvature, so that a little pouching was observable along the greater curvature. The woman had not suffered from any digestive troubles, but had taken and retained her food very well. At the point of junction there was no stenosis, the thumb being easily passed through the orifice. The union was perfect in all respects, so that hardly any scar could be perceived along the line of the suture.—*Med. Times and Gazette.*

SARSAPARILLA IN SYPHILIS.—Dr. Wm. Carter contributes to the Practitioner an article in which he gives evidence that sarsaparilla in large doses as a remedy for syphilitic cachexia has fallen into undeserved neglect. It has succeeded with him when iodide of potassium has failed to improve the general condition, though it may have relieved the nocturnal pains.

IN the treatment of hysterical eclampsia it will not do to compress the ovaries roughly and without discrimination. Perast has reported a case of peritonitis and death following only moderate pressure on the left ovary in a patient who was simply hysterical.

ON Wednesday, July 13th, there were thirteen cases of "heat-stroke" in Louisville. Four of these were directly fatal, while with several others recovery is doubtful.

PUCK says the order of the Knights of the Goitre are principally found in Switzerland. Its members are all swells.

DR. J. E. REEVES has been appointed secretary of the State Board of Health, West Virginia.

Selections.

Pathology of Phthisis.—At the discussion at Glasgow on the Pathology of Phthisis Pulmonalis (British Medical Journal), Dr. Coats, whose remarks concluded with the assertion "that pathology undoubtedly points to a virus as the cause of phthisis, and clinical facts to a state of the system as at the bottom of it," began by saying it was necessary to find an answer to these three questions: 1. Is phthisis pulmonalis a tubercular disease? 2. What are the characteristics of tubercular disease? 3. How are we to recognize tuberculosis?

After an able description and analysis of the anatomical characters of acute general tuberculosis, and of a local tuberculosis, such as is observed in the kidney, the so-called renal phthisis, he concluded that in either case there was an "infective" process—i. e. a process "in which lesions are to be traced to the direct action of a virulent agent introduced from without or formed inside the body. Acute miliary tuberculosis was an infective disease, because each miliary tubercule owed its origin to the action of an infective particle. So also local tuberculosis was infective, because there was again evidence of some infective material acting directly on structures, and producing the particular form of lesion called a tubercle." He pointed to the symmetrical distribution of the lesion in acute miliary tuberculosis as indicating a "blood disease," and maintained that it was "impossible to escape from the conviction that there was some virus carried by the blood to the various organs affected; and although in almost every case there were evidences of concomitant inflammation, and although tubercles in some respects were analogous to inflammatory structures, they were not to be regarded as simply inflammatory any more than syphilitic gummata were to be so considered, although presenting at least as much analogy in structure to inflammatory products."

Dr. Coats next described the anatomical characters and the processes of the formation of cavities in the two distinctly recognizable forms of phthisis pulmonalis. The first, the more common, was in its purely anatomical aspects to a great extent, but not entirely, a catarrhal inflammation of the lung. The products accumulated in the air-cells, together with the portions of lung-tissue involved in the condensation, underwent caseous metamorphosis; and that was "not merely the drying in and fatty degeneration of inflammatory products, but actual death, not only of those products, but of the piece of lung in which they were contained;" and the process warranted the name of caseous necrosis, and this caseous necrosis was sometimes "almost an acute process." This marked necrosis of these products and of the lung-tissue besides, was not explicable on any assumed mere degenerative tendency on the part of the inflammatory products. The chief anatomical characters of the second form—that commonly designated cirrhosis of the lungs—consisted in a new formation of connective tissue, followed by contraction of this tissue; in fact it was an interstitial inflammation of the lung. By the contraction of the connective tissue there was great destruction of the proper vesicular tissue of the lung; the bronchial mucous membrane became the seat of inflammatory catarrhal changes; to compensate for the great shrinking, there were not only depression of the chest-wall, but also local emphysema, and cavities formed by dilatation of the bronchial

tubes. But in some parts of lungs so affected "isolated patches of condensation, in the form of groups of nodular projections," might be seen; and these were found to present "rounded bodies supposed to be tubercles, and containing distinct giant-cells." The relation of these two conditions to tuberculosis had next to be considered. Was tuberculosis associated with these processes, and in what way? The presence of an infective virus, in the first form, was evidenced by the almost constant presence (after the formation of cavities) of tubercular ulcerations of the bronchial mucous membrane; and when lung-tissue containing the tubercular virus was swallowed, infective tubercular ulceration of the intestine might be found. He had not found these bronchial or intestinal ulcers in the cirrhotic form of lung-disease. But he had found equally good evidence of the presence of the tubercular virus in this form, as in the other, in the shape of miliary tubercles in the presumedly sound lung, as well as in the liver and in the spleen.

All admitted that tubercles occur in phthisis pulmonalis; but the point in debate was: Was tuberculosis an integral part of the processes in ordinary cases of phthisis, or was it always secondary? It was also admitted that the presence of tubercle was an evidence of the existence of an infective process—the presence of a virus or ferment. But it was maintained on one side that "the tuberculosis was secondary to the inflammatory process, and the ferment or virus was produced by the caseous material;" while on the other hand it was held that "the whole process was a tubercular one from the first, and that inflammatory products and tubercles were equally the result of the irritation of the tubercular virus."

Dr. Coates had commenced the study of phthisis strongly imbued with the first of these views; and he had examined the lungs in phthisis with the definite object of finding a non-tubercular catarrhal process; but he had been driven to the conclusion that, "in all cases of caseous phthisis, tubercles were inseparably mixed up in the morbid process, and it was the same with cirrhotic phthisis; tubercles were inextricably mixed up in the process, and might be found when no caseous material could be discovered after diligent search."

After some forcible objections to the view that the caseous necrosis was due to occlusion of the aveolar capillaries from pressure, he went on to state that in the cirrhotic forms he found that tubercles took part in the transformation into connective tissue; that "wherever there was cirrhosis there were tubercles, and wherever there were tubercles there was cirrhosis." In both forms the tubercles and the inflammatory products were the result of the irritation of the tubercular virus. In the catarrhal form the tubercles underwent caseous metamorphosis; in the cirrhotic form they underwent fibrous transformation.

On a New Method of Supplementary Alimentation.—Dr. Sansom, following out the method proposed and first adopted by Dr. Smith, of New York, has made frequent and successful use of blood enemata. He employs ox-blood most frequently, though sheep's blood is also of value for this purpose. It is necessary that it should be defibrinated the moment it is drawn. Butchers understand this process, and will supply what is called "whipped" or "stirred" blood. It is of course requisite that the blood be fresh—that it be not kept more than a single day. Dr. Smith states that the addition of a grain or a grain and a half of chloral hydrate to each ounce of blood serves to prevent decomposition and to avert any offensive odor in the digestion. In urgent cases, where there is no stomach-digestion, two or three ounces or blood may be injected into the rectum every two of three hours. The fluid may be warmed by placing the containing vessel in hot water, though it is often borne equally well when cold. For chronic cases, in which it supplements stomach-alimentation, it is administered in quantities of from two to six ounces once or twice a day. In some cases its use tends to promote constipation; in a very small percentage the opposite condition of irritability. Blood enemata thus administered present many practical advantages. The supply is easily obtained; the cost is very small—a really important point among the poor when a long-continued course of nutrition per rectum is ordered, one which hitherto has entailed a large outlay for the juice of meat and adjuncts—and the evidence of success is considerable. On the other hand, in procuring the supply of fresh blood there may be some difficulties; especially is this the case when it is wanted in a great hurry; when, for example, the administration of blood per rectum is suggested in a case where direct transfusion might heretofore have been adopted. This difficulty is now overcome, because the blood is prepared, concentrated, and preserved in tins, and thus is ready for immediate use. The preparation of this sanguis bovinus exsiccatus is conducted under the direct supervision of Dr. J. J. Craven, inventor of the great ship-refrigerators for preserving meat during ocean-voyages. The blood is taken from selected animals, and these are bled to death; this, it is said, being the only method of obtaining the blood duly arterialized. The blood is carefully dried at a temperature which never exceeds 110° F. Thus prepared, desiccated blood is soluble in water at temperatures below 160° F., and contains all the elements of healthy blood save water and fibrine. To prepare the injection the concentrated blood is dropped into the warm fluid which is to constitute the injection, a fluid dram of the concentrated representing a fluid ounce of the ordinary blood.—*London Lancet.*

Treatment of Pneumonia during the First Stage—Prof. Alfred L. Loomis, in New York Med. Record, asks:

What measures shall we employ to overcome or mitigate the impression made upon the nervous system by the morbific agent which is operating to produce the pneumonia?

The experience of the past eighteen months leads me to state with some positiveness that in opium we have such an agent. My rule for the past year has been to bring my patient under the full influence of the drug at the onset of a pneumonia, and to hold him in a condition of comparative comfort until the pneumonic infiltration is completed (usually for the first four days of the disease). After this period, the greatest care must be exercised in its use, for now a new danger threatens—namely, paralysis of the bronchi, and consequent accumulation of secretion in the bronchial tubes—which will greatly increase the difficulties of respiration; but during the developing period of the disease, when the pneumonic blow is first struck, morphia hypodermically seems to lessen the nervous shock and to diminish or prevent the effect of the pneumonic poison on the nervous system, until the first violence of the poison has been spent in completing the pulmonary infiltration. The use of opium in this way does not interfere with the usual antipy-

retic treatment of the disease, nor does a demand for alcoholic stimulants contra-indicate its use. The results which have followed this plan of treatment in the limited number of cases in which I have been able to fairly test it (in patients that have been directly under my personal management) have convinced me that it greatly diminishes the chances of heart-failure, and cases which from their age and attending circumstances seemed hopeless have recovered.

The great relief and comfort which the use of opium in this way gives to the pneumonic sufferer during the first four days of his struggles are sufficient to commend it, especially in those cases where an extensive pleuritic inflammation accompanies the pneumonic development.

Epileptiform Convulsions of Short Duration, Probably Induced by the Presence of Tapeworm.—Price Jones, F.R.C.S., writes, in the British Medical Journal: On March 2d I was consulted by a farm-laborer, aged twenty-nine, who informed me that he had for the last eight years occasionally been suffering from symptoms indicative of gastro-intestinal irritation, with loss of flesh, irregular appetite, mental depression, headache and restless nights. I learned from prescriptions that, during this time, the patient took, in powerful doses, most of the anthelmintics, including turpentine, santonin, scammony, and some preparation of mercury, as his history pointed to profuse salivation and loosening of the teeth; but never to his knowledge did he pass any worms. Six months ago he had a "fit," was convulsed, and became insensible for about two minutes, when he regained consciousness. Every second or third day, after the first paroxysm, "fits" of a similar character, but of less intensity and duration, occurred. The bromides, conium, Calabar bean, and other nerve-sedatives, were administered for four weeks, without any effect in checking the frequency of the paroxysms. On the morning of April 2d, I ordered a full dose of the extract of male fern to be followed by castor oil. In the course of the day, to my patient's great joy, a tapeworm twenty-three feet long was passed. A month has elapsed since the expulsion of the parasite, and there has been no recurrence of the paroxysms. The man expresses himself at present as being "all right."

Bromide of Ethyl in Hysteria and Epilepsy. MM. Bourneville and Ollier have been studying the action of bromide of ethyl on hysterical and epileptic patients, and have arrived at the following conclusions (*Le Praticien*): 1. Pupillary dilatation at the commencement of the inhalation of the bromide is not constant. 2. Complete muscular resolution is exceptional. 3. Anesthesia is produced in very variable degrees according to the subjects. 4. The temperature, the secretions, the general state do not appear to be in any way modified. 5. The pulse and respiration are slightly accelerated. 6. There may be produced more or less marked trembling of the limbs during the inhalation, but it does not continue after it. 7. Hysterical attacks are generally easily stopped by bromide of ethyl. 8. Attacks of epilepsy may sometimes be arrested by giving the remedy during the period of tonic spasm; more often the inhalation has no effect. 9. In epilepsy the regular employment of the remedy by daily inhalation for one or two months, markedly decreases the frequency of the attack.—*Med. Press and Circular.*

Fuming Inhalations in Asthma.—There can be no question as to the value of fuming inhalations in the treatment of asthma. The ordinary niter-paper often fails, because it is not strong enough. For some time past I have been in the habit of using very thick and strong niter-papers, which may be called "niter-tablets." They contain both chlorate and nitrate of potash. Each consists of six pieces of white blotting-paper, about six inches square, and they are made by dipping them into a hot saturated solution of niter and chlorate of potash. Before the pieces are quite dry they may be sprinkled with Friar's balsam, spirit of camphor, tincture of sumbul, or some aromatic. The niter-paper so prepared is as thick as cardboard, each piece consisting of six pieces of blotting-paper, closely adherent, and covered all over with crystals of saltpeter and chlorate of potash. The door and windows having been closed, the tablet is placed on a fire-shovel or piece of metal of some kind, and folded down the middle so as to make it like a tent or the cover of a book. When lighted at each end it burns very quickly, throwing out a flame often four or five inches long, and giving rise to dense volumes of smoke. The asthmatic patient almost immediately obtains relief, and drops off into a quiet slumber from which he awakes refreshed. These tablets often succeed when the ordinary niter-papers do no good. They nearly always induce sleep, and I have used them with success in cases of insomnia when most of the ordinary remedies have failed. Large pastiles composed of equal parts of niter and lycopodium are also useful in asthma.—*Wm. Murrell, M.D., in Brit. Med. Journal.*

Hydrocyanic Acid and Cerebral Circulation.—In the Practitioner, Dr. F. P. Atkinson, in a paper entitled Vasomotor Influence in the Production of certain Functional Disorders, with some remarks as to treatment, refers to the sedative action exerted by diluted hydrocyanic acid on the brain, spinal cord, and heart. [Dr. Kenneth Macleod published in the Medical Times and Gazette a series of cases showing the wonderful power which five-minim doses of Scheele's acid have in calming cerebral excitement in cases of mania. The advantages of the drug, in comparison with other calmatives and hypnotics, are: 1. The rapidity, certainty, and simplicity of its effects; 2. Its manageability and freedom from any cumulative property; 3. The absence of any disagreeable, concomitant, or consequent physical disturbance which most other analogous modes of remedial treatment possess; 4. Its small bulk, want of color, and miscibility; 5. Its want of repulsive smell and taste—a very great virtue with the insane, who are very apt to rebel against medicine. Dr. Macleod recommends five minims, to be repeated every quarter of an hour if need be; or five minims mixed with twenty-five of water may be injected subcutaneously or administered as an inhalation.—*Rep.*]—*Lond. Med. Record.*

[Scheele's acid is two and a half times stronger than the dilute acid U. S. P.]

Death from Bromide of Ethyl.—Dr. R. J. Levis, of Philadelphia, the distinguished advocate of bromide of ethyl, recently lost a patient under this anesthetic at the Jefferson Medical College Hospital. The patient was about to be operated upon for stone in the bladder, but died as the first incision was being made. Dr. Levis was present during the administration of the anesthetic, and no doubt exercised every known precaution.—*Med. Press and Circular.*